This question paper contains 2 printed pages.

Roll No. .....

Sys. Desi. Con.

B.C.A. (Part-III)

332

B.C.A. (PART-III) EXAMINATION, 2019

(Faculty of Science)

(Three-Year Scheme of 10+2+3 Pattern)

SYSTEM DESIGN CONCEPTS - 332

Time Allowed : Three Hours

Maximum Marks : 100

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer book. One complete question should not be answered at different places in the answer book.

Write your roll number on question paper before start writing answers of questions.

Question paper consists of three parts.

All three parts are compulsory.

PART-I : *(Very Short Answer) consists of 10 questions of 2 marks each. Maximum limit for each question is upto 40 words.*

PART-II : *(Short answer) consists of 5 questions of 4 marks each. Maximum limit for each question is upto 80 words.*

PART-III : *(Long answer) consists of 5 questions of 12 marks each with internal choice.*

PART - I

1. (a) What is requirement of system design ? 10x2=20
   (b) Write any three system design techniques.
   (c) Define COCOMO model.
   (d) Describe the data modeling.
   (e) What is maintenance problem with linear life cycle ?
   (f) What is testing fundamentals ?
   (g) What are differences between white box and black box testing ?
   (h) Write any four characteristics of good management information system.
   (i) What is the use of computer application in business ?
   (j) What is system approach ?

PART - II

2. (a) What is system design ? Explain various techniques of it in brief. 5x4=20
   (b) What is DFD ? Explain DFD notation.
   (c) What do you understand by protyping ? Write benefits of it.
   (d) What are methods of waterfall cycle ? Explain with example.
   (e) What type of decision support system do we have ?

PART - III

UNIT - I

3. Explain the various system development life cycle. 12

OR

Explain the Object Oriented and Data Oriented approaches in detail. 12

UNIT - II

4. What are the different types of decisions write in detail ? 12

OR

How will be conversion from data flow diagram to structure charts ? Explain. 12

UNIT - III

5. What is testing ? How many types of test cases are there ? Differentiate between white box and black box testing. 12

OR

Write short notes on the following : 3x4=12

(a) System implementation

(b) Verification

(c) Validation

UNIT - IV

6. What is software project planning ? Explain problem-based estimation and process-based estimation in detail. 12

OR

What do you mean by planning ? Differentiate between architectural design and procedural design. 12

UNIT - V

7. How will you implement Management Information System in Computer Application ? Explain in detail. 12

OR

Write short notes on the following : 12

(a) Analysis

(b) Evaluation

(c) Development

(d) Implementation

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